

Notice of Allowability

Application No.

09/443,026

Examiner

Charles E Anya

Applicant(s)

DIAMANT, NIMROD

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to applicant's remarks/argument of 7/12/04.
2. ☒ The allowed claim(s) is/are 1-6,8,9,12,14,15,18,19-21,28: now renumbered as 1-16.
3. ☒ The drawings filed on 11/18/04 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 10/29/04.
7. ☐ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.


MENG-LI T. AN
SUPERVISORY PATENT EXAMINER
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EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Steven Yates (Reg. No. 42,242) on 10/29/04.

In the claims:

a. Claim 1, replace with the following claim 1:

Claim 1. A computer accessible medium having associated therewith encoded instructions to direct a processor to perform an application programming interface (API) having:

an identify address function for identifying a stored node address stored by a based driver;

a status function in communication with a first base driver for a first network interface to detect a failure of the first network interface;

a failover function including an update node address function to direct a second base driver for a second network interface to store the node address of the first network interface in a configuration storage as the stored node address for the second base driver, and to store the node address of the first network interface in a receive address

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filtering table stored in the second network interface, when it is determined that the first network interface is not operational; and

a first transmission function for re-transmitting network data, received in a compatible format from a network source, in an incompatible format to a network destination, and a second transmission function for re-transmitting network data, received in the incompatible format from the network destination, in the compatible format to the network source when it is determined that a new protocol is needed.

b. Claim 4;

- Line 1, replace "An" with – The --;

c. Claim 5;

- Line 1, replace "An" with – The --;

d. Claim 6, replace with the following claim 6:

Claim 6. An article of manufacture, comprising a computer accessible medium having associated therewith programming instructions capable of directing a processor to perform operation of:

an identify address function for identifying a stored node address stored by a based driver;

a status function in communication with a first base driver for a first network interface to detect a failure of the first network interface;

a failover function including an update node address function to direct a second base driver for a second network interface to store the node address of the first network interface in a configuration storage as the stored node address for the second base driver, and to store the node address of the first network interface in a receive address filtering table stored in the second network interface, when it is determined that the first network interface is not operational; and

a first transmission function for re-transmitting network data, received in a compatible format from a network source, in an incompatible format to a network destination, and a second transmission function for re-transmitting network data, received in the incompatible format from the network destination, in the compatible format to the network source when it is determined that a new protocol is needed.

- e. Cancel claim 7;
- f. Claim 8;
 - line 1, replace "An" with – The --;
 - line 1, replace "7" with -- 1 --;
- g. Claim 9;
 - line 1, replace "An" with – The --;
 - replace "7" with -- 1 --;

h. Cancel claim 11;

i. Claim 12;

- line 1, replace "An" with – The --;
- replace "11" with -- 1 --;

j. Cancel claim 13;

k. Claim 14;

- Line 1, replace "An" with – The --;
- line 2, insert after "the" – first --;
- line 3, insert after "across" – the --;
- line 8, replace "the node" with – a node --;

l. Claim 15, replace with the following claim 15:

Claim 15. A networking method for operational network interfaces, comprising:
receiving network traffic for a first network interface having a first node address at
a protocol stack;

determining the operative status of the first network interface having a first driver;

if the first network interface is inoperative, instructing a second driver of a second
network interface, by an application programming interface (API) including an update
function to store a MAC address of the first network interface in a configuration storage

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of the second driver and to store the MAC address in a receive address filtering table of the second network interface;

- directing the second driver to activate the second network interface;
- directing the first driver to deactivate the first network interface;
- determining if a new protocol stack is needed for routing the network traffic;
- if a new protocol stack is needed, sending the traffic to an intermediary layer;
- routing the network traffic from the intermediary layer to a virtual driver;
- repackaging the network traffic by the virtual driver, providing the repackaged network traffic to a virtual protocol stack;
- sending the repackaged network traffic from the virtual protocol stack back to the intermediary layer; and
- routing the repackaged network traffic by the intermediary layer to the second driver of the second network interface.

m. Cancel claims 16 and 17;

n. Claim 18;

- lines 1 and 2, replace "A method according to claim 16, wherein locating the fail over network interface" with –The networking method of claim 15, wherein before instructing a second driver of a second network interface, by the application programming interface (API) including an update function to store the MAC address of the first

network interface in a configuration storage of the second driver and to store the MAC address of the first network interface in a receive address filtering table of the second network interface --;

- line 3, replace "a base" with -- the second driver --;
- line 5, replace "said" with -- the second --;

o. Claim 19, replace with the following claim 19:

Claim 19. An article of manufacture, comprising a computer accessible medium having associated therewith encoded programming instructions capable of directing a processor to perform operation of:

receiving network traffic for a first network interface having a first node address at a protocol stack;

determining the operative status of the first network interface having a first driver;

if the first network interface is inoperative, instructing a second driver of a second network interface, by an application programming interface (API) including an update function to store a MAC address of the first network interface in a configuration storage of the second driver and to store the MAC address of the first network interface in a receive address filtering table of the second network interface;

directing the second driver to activate the second network interface;

directing the first driver to deactivate the first network interface;

determining if a new protocol stack is needed for routing the network traffic;

if a new protocol stack is needed, sending the traffic to an intermediary layer;

routing the network traffic from the intermediary layer to a virtual driver;
repackaging the network traffic by the virtual driver, and providing the
repackaged network traffic to a virtual protocol stack;
sending the repackaged network traffic from the virtual protocol stack back to the
intermediary layer; and
routing the repackaged network traffic by the intermediary layer to the second
driver of the second network interface.

p. Claim 20, replace with the following claim 20:

Claim 20. A method of redundant networking in a networking environment,
comprising:
receiving network traffic for a first network interface having a first node address at
a protocol stack;
determining the operative status of the first network interface having a first driver;
if the first network interface is inoperative, instructing a second driver of a second
network interface, by an application programming interface (API) including an update
function to store a MAC address of the first network interface in a configuration storage
of the second driver and to store the MAC address of the first network interface in a
receive address filtering table of the second network interface;
directing the second driver to activate the second network interface;
directing the first driver to deactivate the first network interface;
determining if a new protocol stack is needed for routing the network traffic;

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if a new protocol stack is needed, sending the traffic to a intermediary layer;
routing the network traffic from the intermediary layer to a virtual driver;
repackaging the network traffic by the virtual driver, and providing the
repackaged network traffic to a virtual protocol stack;
sending the repackaged network traffic from the virtual protocol stack back to the
intermediary layer; and
routing the repackaged network traffic by the intermediary layer to the second
driver of the second network interface.

q. Cancel claims 22,26 and 27;

r. Claim 28, replace with the following claim 28:

Claim 28. A method of enhancing data network communication comprising:
receiving network traffic for a first network interface having a first node address at
a protocol stack;
determining the operative status of the first network interface having a first driver;
if the first network interface is inoperative, instructing a second driver of a second
network interface, by an application programming interface (API) including an update
function to store a MAC address of the first network interface in a configuration storage
of the second driver and to store the MAC address of the first network interface in a
receive address filtering table of the second network interface;
directing the second driver to activate the second network interface;

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directing the first driver to deactivate the first network interface;
determining if a new protocol stack is needed for routing the network traffic;
if a new protocol stack is needed, sending the traffic to a intermediary layer;
routing the network traffic from the intermediary layer to a virtual driver;
repackaging the network traffic by the virtual driver, and providing the
repackaged network traffic to a virtual protocol stack;
sending the repackaged network traffic from the virtual protocol stack back to the
intermediary layer; and
routing the repackaged network traffic by the intermediary layer to the second
driver of the second network interface.

s. Cancel claim 29;

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E Anya whose telephone number is (571) 272-3757. The examiner can normally be reached on M-F (8:30-6:00) First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, An Meng-Ai can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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